Solutions for Demanding Applications

VarTech Systems Inc.

Industrial CRT and Flat Panel Displays

14”
Console Mount
Auto Sync Color Monitor

MODEL NUMBER:
VT14B-C1

User’s Guide

Read these instructions completely before attempting to operate your new Color Display.

TABLE OF CONTENTS

Sections	Page
Warning and Caution	1
Operating Instructions	2
5BNC Connectors	3
Controls	4
Mode Operations	5
Chassis Mount Mechanical	6
Specifications	7

Section

1

SAFETY WARNINGS

The following warnings and cautions are for your safety, for the prevention of injury from electric shock and for the safe operation of the monitor. Please read them carefully.

- Do not block the ventilation slots or insert any objects into the monitor through them.
- Do not spill water onto the monitor or spray aerosol cleaners directly onto its surfaces when cleaning.
- Always position and operate the monitor on a stable and safe surface.
- Do not install the monitor in a damp area, or where it may be exposed to rain or other sources of water.
- Ensure that all accessible cables cannot be walked on, tripped over or damaged by furniture or other transportable objects.
- If the monitor is damaged or fails to function correctly, disconnect it from the AC source. Do not attempt to repair it yourself. Consult a qualified service technician.
- Serious electrical shock hazards exist within the covers of the monitor. Under no circumstances should these covers be removed.

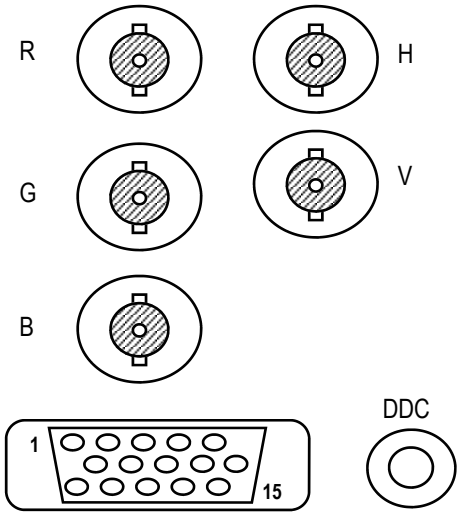
WARNING
Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

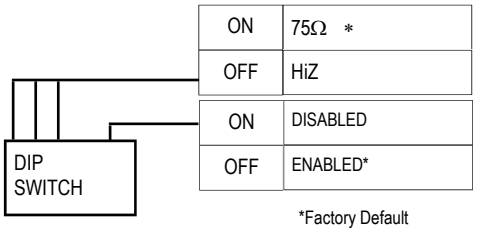
NOTE
This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference using one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and the receiver;
- Connect the equipment into an outlet on a circuit different from that to which the receiver is needed;
- Consult the dealer or an experienced radio/TV technician for help.

Video Signal Correction

The monitor is supplied with a 15pin HD connector (HD15F), 5BNC input connectors and an optional 9pin connector (DB9F) arranged as shown below:





15 Pin D CONNECTOR:
This is an industry standard connector providing easy connection to VGA type video sources

Pin	Function	Pin	Function
1	Red Video In	8	Blue Return
2	Green Video In	9	NC (grounded in monitor)
3	Blue Video In	10	Digital ground
4	NC	11	Digital ground
5	NC	12	NC
6	Red Return	13	Horizontal sync
7	Green Return	14	Vertical sync
		15	NC

BNC CONNECTORS
These connectors allow the monitor to work with Red, Green and Blue coaxial cable. The monitor synchronization may be Sync on Green, Composite sync or Separate Horizontal and Vertical sync. The "H" input is used for composite sync.

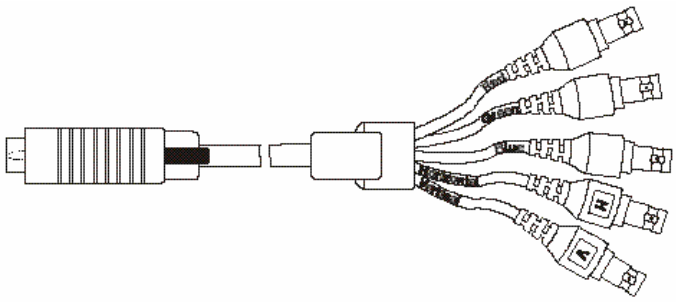
Video inputs:
Red, Green, Blue. 0.7v p-p into 75 Ω

Sync inputs:
1. Sync on green 0.3v p-p into 75Ω superimposed onto green video. (3 wire)
2. Composite sync TTL level, positive or negative, combined horizontal or vertical sync. (4 wire)
3. Separate syncs TTL level, positive or negative, separate horizontal and vertical sync. (5 wire)

DIP SWITCH SETTINGS
SW1,2,3 75Ω / Hi Z. The input impedance of the Red, Green, Blue BNC inputs can be switched between 75Ω and High impedance. For normal operation the switches should be in the ON position (75Ω). If it is required to connect more than one monitor to a single video source (loop through) then the switches may be switched to OFF so that the combined input impedance of more than one monitor remains at 75Ω. These three switches have no effect on the 15 way D input connector.

SW4 PRIORITY. This switch becomes relevant when there are video signals present on both the BNC and the 15 way D connectors. The monitor will automatically select the video signal which has the highest priority. If only one video source is connected to the monitor then the priority switch should have no effect.

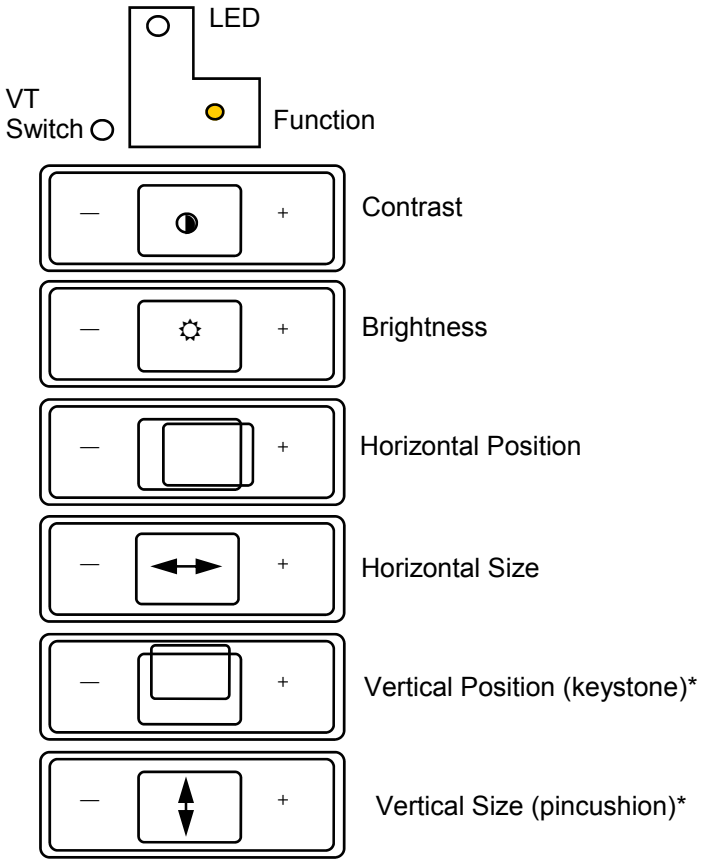
SW4 ON: The BNC input is highest priority
SW4 OFF: The priority is controlled by the VT key on the front controls.



DIGITAL CONTROLS

The digital controls are located on the rear side of the monitor.

Digital Display Control



* Press Function button. LED will blink allowing for keystone & pincushion adjustments.

MODE OPERATIONS

In the normal mode of operation, the LED is not flashing.

Disable Keypad

1. Press and release the FUNCTION (upper right) switch. The LED will now be flashing.
2. Simultaneously press the FUNCTION and the VT (upper left) switches. Note that the VT switch is not labeled. The LED will momentarily be off and then resume flashing.
3. Press and release the FUNCTION (upper right) switch. The LED will not be flashing.
4. To enable the keypad, repeat the above steps.

Factory Default Settings

1. Press and release the FUNCTION (upper right) switch. The LED will now be flashing.
2. Simultaneously press the VT switch and the VERTICAL SIZE + (bottom right) switches. The LED will momentarily be off and then resume flashing. All stored setups will be deleted except original factory setups.
3. Press and release the FUNCTION (upper right) switch. The LED will not be flashing.

Display Storage

1. Adjust the display for Brightness, Contrast, Horizontal Position, Horizontal Size, Vertical Position, Vertical Size. This is done while the LED is not flashing.
2. Press and release the FUNCTION (upper right) switch. The LED will now be flashing.
3. Adjust the display for Keystone and Pincushion.
4. Press the CONTRAST + switch. This will store the display and return the keypad to normal operation. The LED will not be flashing.

Section

4

SPECIFICATIONS

ENGINEERING SPECIFICATIONS	
Size	14”
Pitch	.28mm
Resolution Capabilities	CGA to XGA
Active Display Area	11” x 8.3” / 279.4mm x 210.82mm
Deflection Angle	90º
Phosphor	Medium Short B22
Power Source	90 - 265 volts AC autoranging 50/60 Hz, 1.5 amps ac
Power Consumption	90 Watts
Horizontal Frequency	30kHz to 54kHz
Vertical Frequency	45Hz to 100Hz
Bandwidth	90MHz
Video Input Connector	HD15(F) and 5BNC
Video Input Signal	Analog 0.7 p-p
Sync	Separate Horizontal and Vertical TTL syncs OR Composite TTL Syncs OR Sync on Green
Temperature	Operating: 0 to 55ºC Storage: -25 t0 70ºC
Humidity	Operating: 10 to 90% NC Storage: 0 to 95% NC
Degaussing	Automatic at power ON & Manual
Note: For continued compliance with Electromagnetic Compatibility limits, this monitor must be used with the signal lead supplied.	

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